



Collins Telecommunications  
Products Division  
Cedar Rapids, Iowa 52406

Rockwell  
International

# AN/ARC-159/159(V)/159A(V) UHF TRANSCEIVER FAMILY

## Description and Application





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MODEL/VERSION	DEVELOPMENT PERIOD	COLLINE PRODUCTION	OTHER PRODUCTION	TOTAL PRODUCTION
AN-159-1	1954-55	45,000	20,000	65,000
AN-159-2	1954-55	17,000	10,000	27,000
AN-159-3	1954-55	3,000	5,000	8,000
AN-159-4	1954-55	1,500	2,500	4,000
AN-159-5	1954-55	1,000	500	1,500
AN-159-6	1954-55	2,000	400	2,400
AN-159-7	1954-55	500	2,500	3,000
AN-159-8	1954-55	11,000	2,000	13,000
AN-159-9	1954-55	2,500	1,500	4,000
AN-159-10	1954-55	1,500	500	2,000
AN-159-11	1954-55	2,000	None	2,000
AN-159-12	1954-55	500	None	500
AN-159-13	1954-55	20	None	20
AN-159-14	1954-55	50	None	50
AN-159-15	1954-55	100	None	100
AN-159-16	1954-55	1,500	None	1,500
AN-159-17	1954-55	54,574	20,700	75,274



## Introduction

Collins Divisions experience in uhf communications dates back to the AN/ARC-27 3 decades ago. Collins is the only company to maintain uninterrupted tactical uhf development and production effort since the introduction of uhf into DOD inventory. Over 150,000 uhf radio sets of Collins design have been produced. Collins has produced 95,000 and second production sources almost 60,000 units. This represents over 90 percent of the uhf equipment delivered during this period.

Since the AN/ARC-27 in 1948, Collins has maintained constant leadership in uhf development, which culminated in the AN/ARC-159 in 1972. The AN/ARC-159 was the first 7000 channel solid-state uhf transceiver completely self-contained in a military panel-mounted configuration.

From the proven Collins design, the AN/ARC-159 was expanded in 1973 into a versatile family of uhf equipments for new and retrofit applications. The AN/ARC-159(V) family allows retrofit of earlier uhf equipments such as the AN/ARC-27, AN/ARC-34, AN/ARC-52, and AN/ARC-51 by the use of adaptive mounting trays, which eliminate the need to modify aircraft wiring. Panel-mounted versions can replace the AN/ARC-116 and AN/ARC-150.

The unique serial frequency control scheme provides direct interface with existing aircraft wiring with exceptional noise immunity. A variety of optional controls including the C9815 "half-size" control further increase installation versatility.

Extensive US Government and International evaluations of the AN/ARC-159 plus almost 3 years of unexcelled field performance have convinced many users and airframe manufacturers to adopt the AN/ARC-159 as standard.

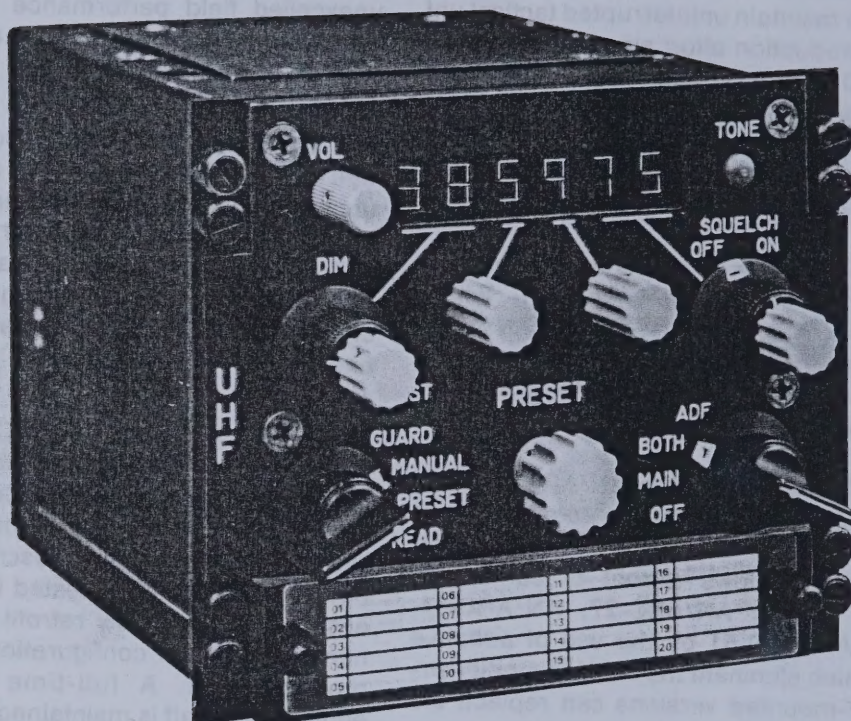
The US Naval Air Systems Command has procured well over 1000 units since 1972 and has experienced an unprecedented increase in reliability over previous uhf equipments. The AN/ARC-159 is being installed in the entire range of Naval applications from helicopters, transports, and trainers through electronic warfare aircraft and high-speed tactical aircraft such as F-4, A-4, and F-14.

The AN/ARC-159 and AN/ARC-159(V) are designed to provide maximum adaptability while retaining the highest possible degree of commonality at the LRU (line-replaceable-unit) and module level. The typical systems configurations described in this document have been extensively tested in a variety of aircraft to ensure that they truly retrofit the maximum possible number of earlier configurations without costly aircraft modifications. A full-time Program Office and engineering staff is maintained to assist customers with any special adaptations or requirements.

Production rates of 400 units per month are attainable with adequate lead time. Normal production rates of 100 to 200 units per month are currently maintained and are projected to continue into the 1980's.

## 25-Year History.

NOMENCLATURE	DEVELOPMENT PERIOD	COLLINS PRODUCTION	OTHER PRODUCTION	TOTAL PRODUCTION
AN/ARC-27	1948-49	45,000	30,000	75,000
AN/GRC-27	1949-51	17,000	10,000	27,000
AN/ARC-52	1953-55	3,000	5,000	8,000
AN/VRC-24	1953-56	1,200	1,000	2,200
AN/TRC-68	1953-56	1,800	500	2,300
CNI Systems	1955-59	7,500	400	7,900
AN/SRC-20/21	1955-59	900	2,500	3,400
AN/ARC-51	1956-59	11,000	7,200	18,200
AN/PRC-41	1959-60	2,500	1,000	3,500
AN/PRC-66/75	1963-65	1,000	500	1,500
AN/ARC-109	1964-66	2,000	None	2,000
AN/ARC-138	1965-67	300	None	300
AN/ARC-146	1966-68	20	None	20
AN/WSC-1/5	1968-71	50	None	50
RT-1017/ARC-156	1969-71	100	None	100
AN/ARC-159	1971-72	1,500	None	1,500
<b>TOTAL</b>		<b>94,870</b>	<b>58,100</b>	<b>153,970</b>



**Figure 1. AN/ARC-159 Transceiver.**

The AN/ARC-159 (figure 1) is a uhf AM communications transceiver with an extremely compact and cost effective design intended for panel mounting. The transceiver tunes instantaneously to any 25-kHz channel in the 225.0- to 399.975-MHz range. A separate guard receiver allows continuous monitoring of 243.0 MHz. The unit also provides uhf adf output, secure voice compatibility, and retransmission and tone transmission capability.

Channels are tuned electronically by a unique high-low injection synthesizer and varactor tuned receiver front end. The transmitter uses broadband hybrid power amplifiers and preamplifiers, thus completely eliminating mechanical tuning. In addition to manual frequency selection, any of 20 preset channels may be selected. A highly reliable mechanical preset drum is used to store the desired frequencies. A unique design greatly reduces the complexity of preset storage compared to earlier mechanical storage drums.

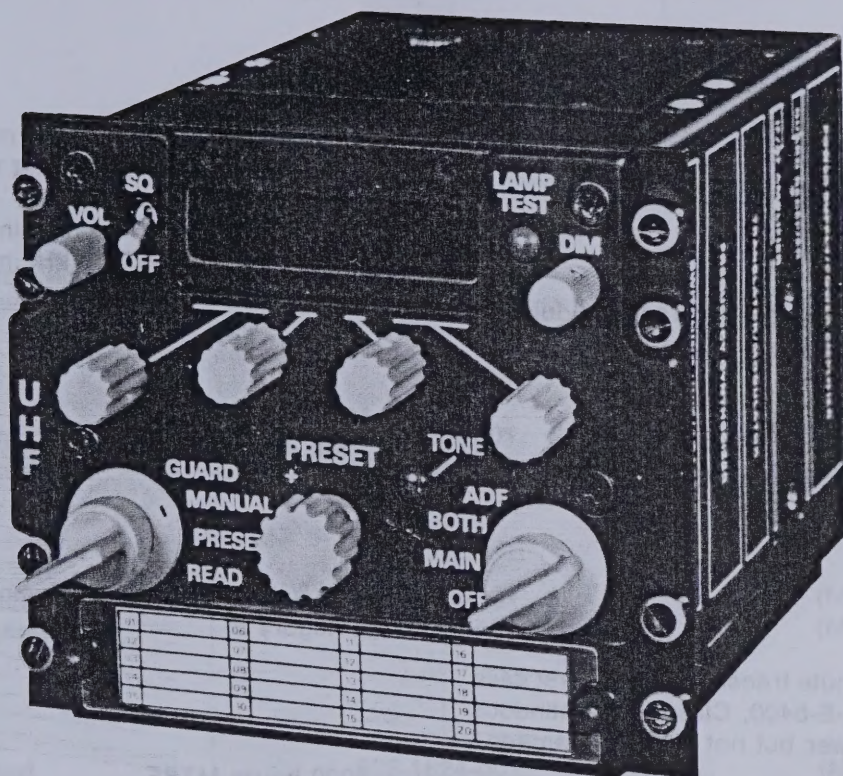
The AN/ARC-159 uses six 7-segment electronic display elements to display either manually selected frequency or preset channel number. Due to this rapid electronic display it is possible to switch to a preset-

read mode and check the frequency stored in any preset channel.

The AN/ARC-159(V) (figure 2) family of uhf transceivers offer quality uhf AM communication in panel-mounted and remote-mounted configurations. The AN/ARC-159(V) is designed to fulfill retrofit and new aircraft requirements through the 1980's. The solid-state power amplifier delivers a full 10 watts of AM carrier output across the 225- to 399.975-MHz band under all service conditions. The RT-1194/ARC-159A(V) (figure 3) offers an option of 30-watt output for installations requiring higher power.

A basic control unit and rt unit may be combined into a self-contained, panel-mounted unit or used with control and rt adapters to form a remotely controlled uhf radio system. A variety of adaptive mounting trays are available to allow the basic AN/ARC-159(V) components to retrofit older uhf systems such as the AN/ARC-27, AN/ARC-34, and AN/ARC-51. Table 1 defines the available versions.

The reduced size and weight, increased reliability, and additional capabilities of the AN/ARC-159(V) make it exceptionally well-suited to retrofit applications. To allow retrofit of earlier systems, which had only 1750-



**Figure 2. AN/ARC-159(V)-1 Transceiver.**

or 3500-channel tuning capability, a low-speed serial data scheme is used. All frequency and preset channel information is transmitted from the control unit to the rt unit and remote frequency/channel indicators on a single pair of wires. A second pair of wires is required for system synchronization from a 750-Hz clock located in the rt unit. The low transmission speed of the data, coupled with a comparison of repetitive identical messages, makes the system virtually immune to electrical interference.

A unique high/low injection scheme in the rt unit simplifies the single-loop digital synthesizer design and allows full 7000-channel uhf coverage. From 200 to 300 MHz the synthesizer is producing injection frequencies 50 MHz above the operating frequency. From 300 to 400 MHz the synthesizer repeats the same injection frequencies that are then 50 MHz below the operating frequency. A dc tuning voltage generated in the synthesizer is utilized to tune a varactor filter in the receiver and a similar filter in the transmit section.

The all-solid-state design makes extensive use of integrated circuits and MOS techniques, and features a Collins hybrid thin-film preamplifier and power amplifier in the transmitter.

The transmitter is low-level modulated at 50-MHz if and utilizes linear amplification to produce 10 watts of AM carrier. Sensing circuits monitor the power amplifier and protect the transmitter in the event that the specified temperature range or vswr limits are exceeded. The transmitter will automatically turn down to one watt carrier minimum under extreme temperature conditions and continue to operate without damage. When the temperature is reduced, full output is restored.

Frequency display on the control unit and the optional remote indicator is an electronic 7-bar display allowing instantaneous reading of stored PRESET frequencies associated with each of the 20-channel designators.

In either the panel-mounted or remote-mounted configuration, control may be accomplished from either of two control units (2nd control optional). A "take command" switch designates the active control.

Guard precedence mode allows emergency operation on 243.0 MHz by means of a single external switch, which activates the radio and selects the GUARD channel.

## Specifications

### Frequency Range

225.000 to 399.975 MHz  
Guard receiver - 243 MHz

### Receiver Sensitivity

3  $\mu$ V for 10 dB (s+n)/n ratio of 30-percent modulation (AM)

### Transmit Power Output

10 watts CW minimum (40 watts PEP)

\*\*30 watts  $\pm 0.4$  dB

### Duty Cycle

5 minutes receive; 1 minute transmit under worst case service conditions (MIL-E-5400, Class I). (Continuous transmit will reduce power but not result in damage.)

\*\*10 minutes receive; 5 minutes transmit under worst case service conditions (MIL-E-5400, Class II modified. External air or blower required.)

### Transmitter Modulation Capability

90 percent AM

### Modulation Response

Narrow band: 300 to 3500 Hz  
Wide band: 300 to 25 kHz

\*CASS input: 1 to 50 kHz

### Audio Output

250 milliwatts into 150/600 ohms

### Audio Response

Main: 300 to 3500 Hz  
Auxiliary: 50 to 25,000 Hz

60 dB minimum

### Selectivity

Narrow band: 6 dB, 38 kHz minimum  
60 dB, 80 kHz maximum

Wide band: 6 dB, 70 kHz minimum  
60 dB, 170 kHz maximum

### Environmental

MIL-E-5400, Class I.

\*\*MIL-E-5400, Class II.

### Input Power

+28 V dc, in accordance with MIL-STD-704, Category B

### Reliability

1000 hours MTBF

$\pm 2.0$  kHz

### Options

Remote or panel mount

\*\*Remote only

### Size

5-3/4 inches wide, 4-7/8 inches high, 6-1/2 inches deep.

\*6 inches wide, 5 inches high, 13 inches deep.

### Weight

9 pounds

\*9.5 pounds

\*\*13 pounds

All RT's

\*AN/ARC-159(V)

\*\*RT-1194/ARC-159A(V) 30 W

# Panel Lighting Options

CFN

LIGHTING SPECIFICATIONS

AN/AP-159

Red lighted  
White lighted

622-0356-001  
622-0356-003

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-1524-001  
622-1524-010

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-0629-001  
622-0629-002

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-1624-001  
622-1624-002

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-2249-001  
622-2249-002

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-2250-001  
622-2250-002

(MIL-P-7788)  
(MIL-L-27160)

AN/AP-159(V)

Red lighted  
White lighted

622-2251-001  
622-2251-002

(MIL-P-7788)  
(MIL-L-27160)

Red lighted  
White lighted

622-2252-001  
622-2252-002

(MIL-P-7788)  
(MIL-L-27160)

Red lighted  
White lighted

622-1006-001  
622-1006-002

(MIL-P-7788)  
(MIL-L-27160)

## Physical Description



Figure 3. RT-1194/ARC-159A(V)

Figure 4 illustrates the commonality between the AN/ARC-159 and units of the AN/ARC-159(V) and ARC-159A(V) family.

Three plug-in modules (synthesizer, guard receiver, and if-af amplifier module) are used in all versions.

The control switching module, translator modulator, and PA/PS modules were improved to incorporate additional capability into the AN/ARC-159(V) but remain very similar to the basic AN/ARC-159 in operation and component content. These improved modules are used in all versions of the 10-watt AN/ARC-159(V).

In the AN/ARC-159(V)-1 panel mount version, the control switching module is plugged into the RT-unit to form an integral panel-mounted transceiver. In the remote versions (V-2, 3, 4, 5, 8) a standard RT-unit adapter replaces the control module to form a remote RT-1150/ARC-159(V) unit. The control module is fitted with a variety of plug-on adapters to form control units C-9946, 9951, 9952, 9954, and 9957. Each of these is designed to mechanically adapt the AN/ARC-159(V) to specific new and retrofit installations.

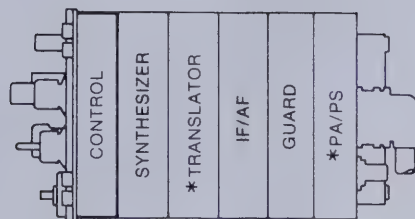
The RT-1194/ARC-159A(V), shown in figure 3, is a 30-watt version that utilizes all the existing AN/ARC-159(V) modules except the 10-watt PA/PS module. This module is replaced by a higher power unit with the necessary cooling air provisions needed to dissipate the higher power.

Any of the various control versions operate with the RT-1194/ARC-159A(V).

Figures 5 through 12 show mounting and installation dimensions of the AN/ARC-159, AN/ARC-159(V)-1, RT-1150, RT-1194/ARC-159A(V), MT-4658 Mount, C-9577, and related equipment.

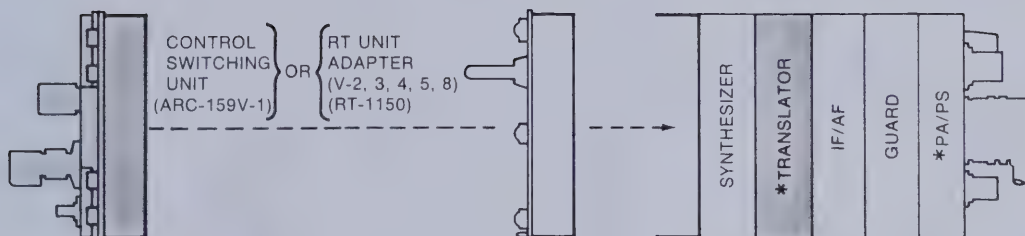
The C9946, 9951, 9952, 9954 are retrofit controls. Their installation dimensions and connector configuration conform to the control units which they replace. Table 2 lists the controls replaced by each version.

Photographs on page 13 show the AN/ARC-159(V)2, 3, 4, 5, and 8 respectively, and table 3 lists Collins part numbers and application of each version.



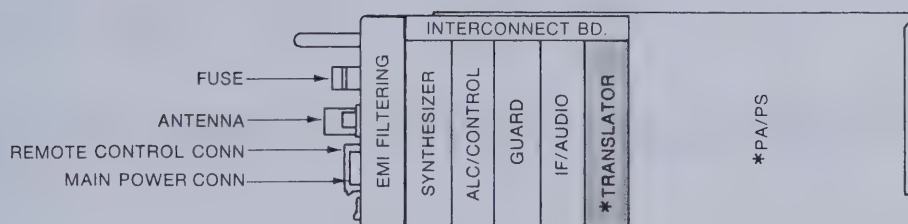
\*NOTE: TRANSLATOR MODULATOR AND PA/PS SIMILAR TO ARC-159 WITH ADDED FEATURES IN AN/ARC-159(V) AND RT-1150, RT-1194

## AN/ARC-159



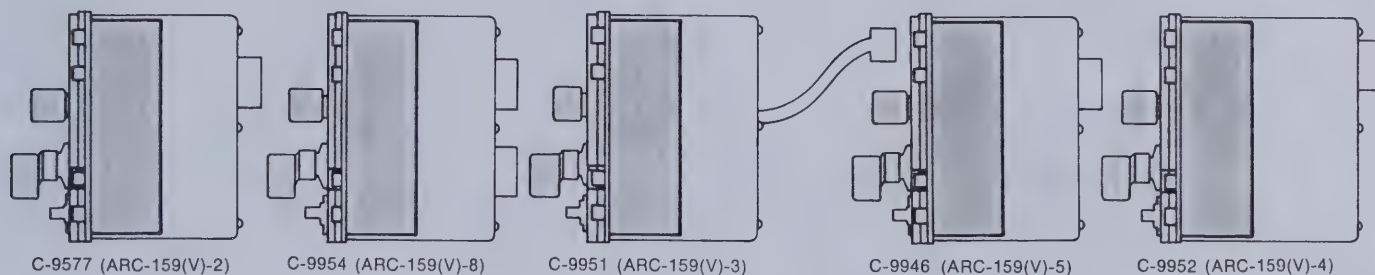
\*NOTE: TRANSLATOR MODULATOR AND PA/PS SIMILAR TO ARC-159 WITH ADDED FEATURES IN AN/ARC-159(V) AND RT-1150, RT-1149

## AN/ARC-159(V)-1 or RT-1150/ARC-159(V) 2, 3, 4, 5, 8



\*NOTE: TRANSLATOR MODULATOR AND PA/PS SIMILAR TO ARC-159 WITH ADDED FEATURES IN AN/ARC-159(V) AND RT-1150, RT-1194

## RT-1194/ARC-159A(V)



## Controls

Figure 4.

### AN/ARC-159(V)

(V)-3  
(V)-4  
(V)-5

(V)-8

### CONTROL

C-9951  
C-9952  
C-9946

C-9954

### REPLACES

C-1703/ARC-27  
C-1607/ARC-52  
C-6287, 6476,  
6556, 6555,  
7916/ARC-51  
C-1057B/ARC-34  
C-6365/ARC-34

Table 2. Controls



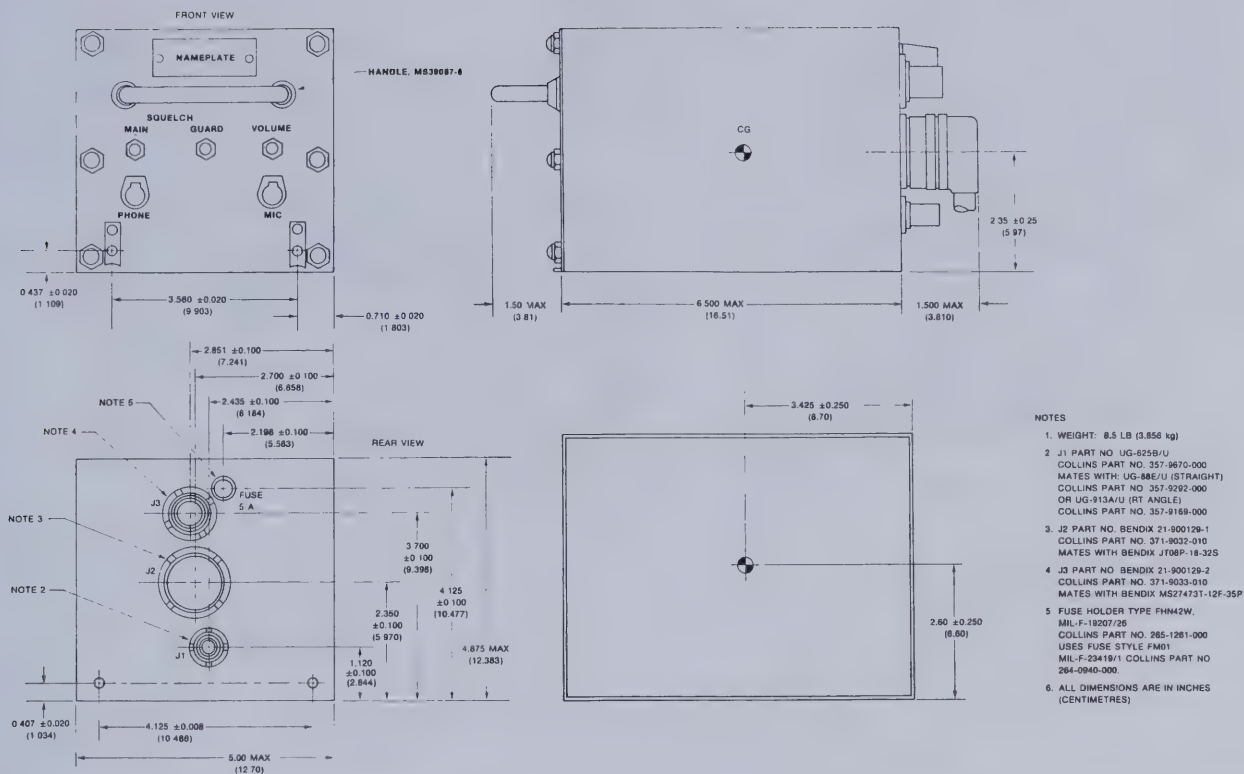


Figure 7. RT-1150/ARC-159(V) Receiver-Transmitter, Outline and Mounting Dimensions

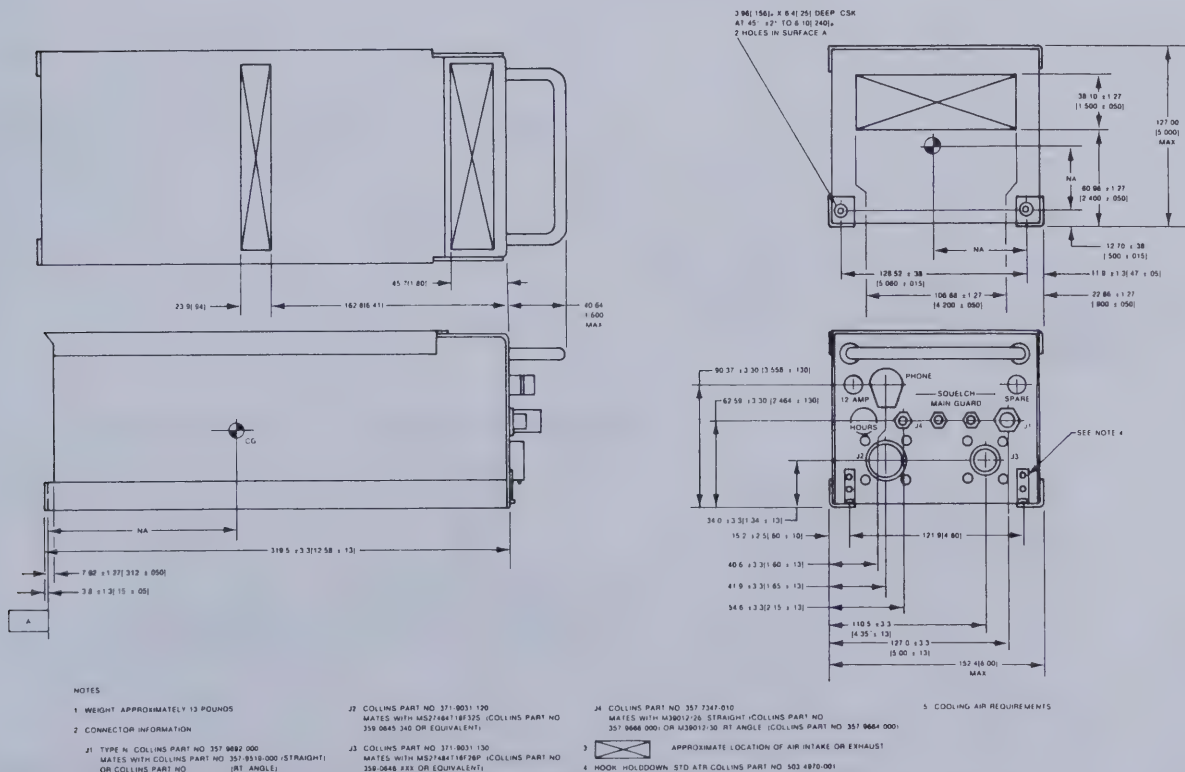
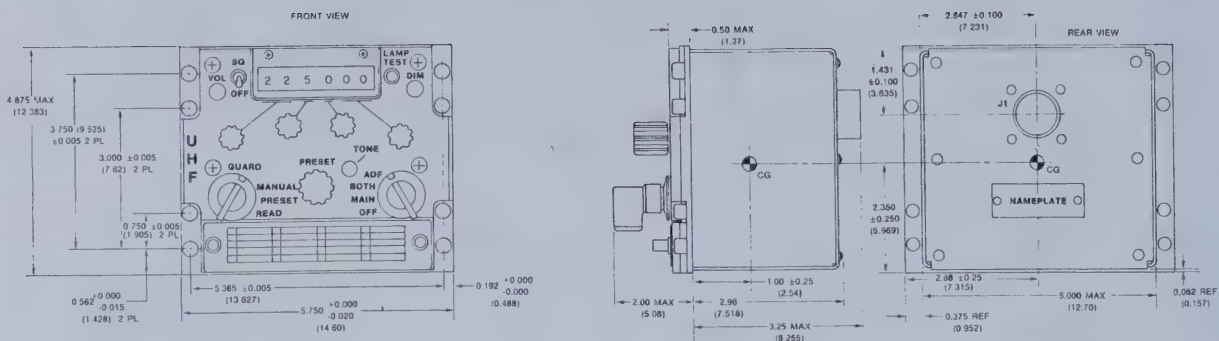
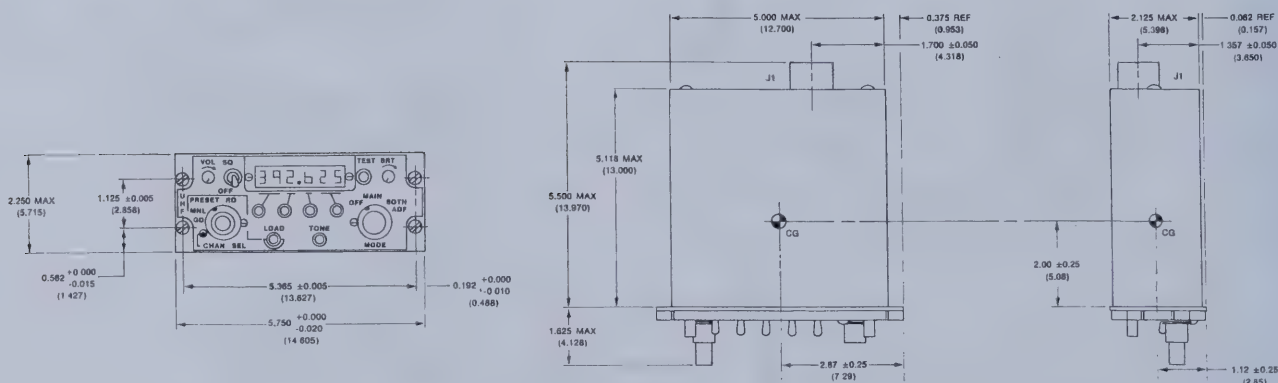


Figure 8. RT-1194/ARC-159A(V)5, Outline and Mounting Dimensions



- NOTES:
1. WEIGHT: 3.8 LB (1.724 kg)
  2. J1 PART NO: MS27497E-18B-32P  
MATES WITH MS2743T-18B-32S
  3. ALL DIMENSIONS ARE IN INCHES (CENTIMETRES)

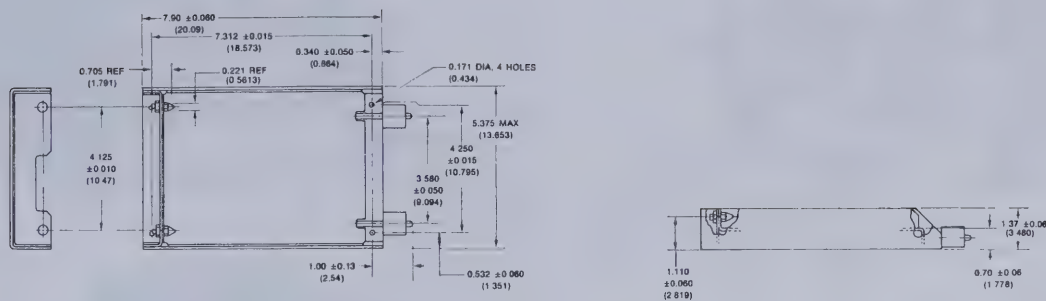
Figure 9. C-9577/ARC-159(V) Control Unit, Outline and Mounting Dimensions



MILITARY TYPE NUMBER	LAMP COLOR	LAMP VOLTAGE
C-9815/ARC-159(V)	RED	5
C-9816/ARC-159(V)	RED	28
C-9817/ARC-159(V)	WHITE	5
C-9818/ARC-159(V)	WHITE	28

- NOTES:
1. WEIGHT: 3.0 LB (1.36 kg) MAX
  2. J1 PART NO: MS27508E-14F-35P  
MATES WITH MS27484T-14F-35S  
USE STRAIN RELIEF MS2750-7F-14
  3. DIMENSIONS ARE IN INCHES (CENTIMETRES)

Figure 10. Radio Set Controls C-9815, C-9816, C-9817, and C-9818/ARC-159(V), Outline and Mounting Dimensions



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (CENTIMETERS)
  2. WEIGHT: 1.3 LB (0.59 kg) MAX

Figure 11. MT-4658/ARC-159(V) Mount, Outline and Mounting Dimensions

- NOTES
1. ALL DIMENSIONS ARE IN INCHES (CENTIMETERS)
  2. WEIGHT 1.1 LB

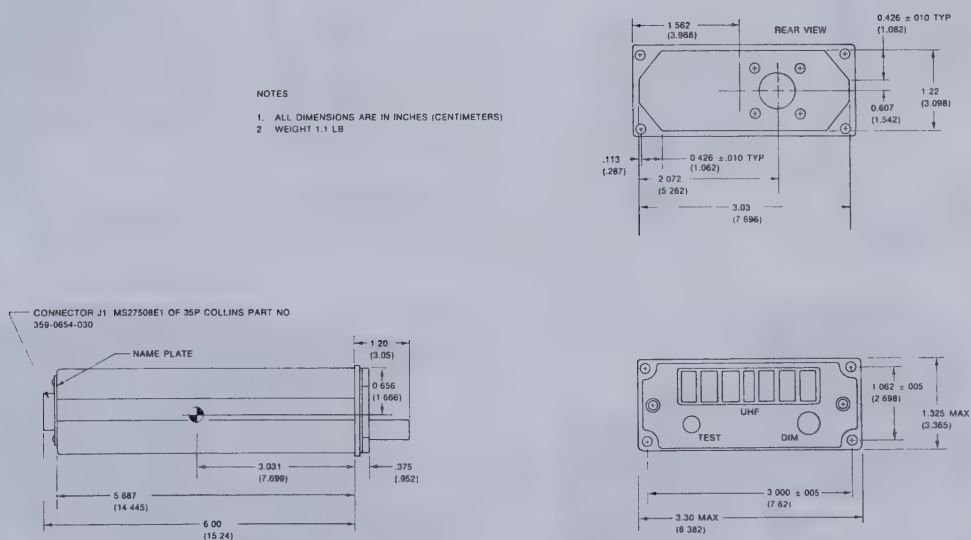
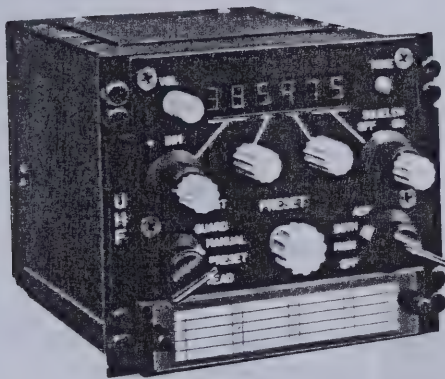


Figure 12. ID-1972/ARC-159(V) Indicator Outline and Mounting Dimensions

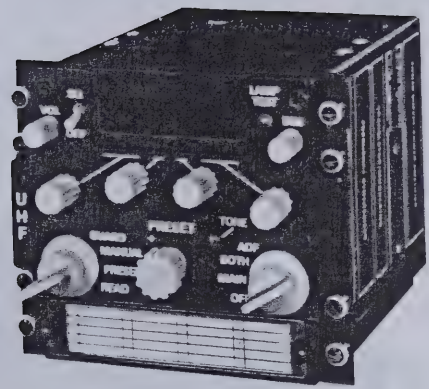
System	Unit	CPN	Replaces
AN/ARC-159	AN/ARC-159	622-0356-001	New installation or ARC-116/ARC-150
AN/ARC-159(V)-1	AN/ARC-159(V)-1	622-1524-001	New installation or ARC-116/ARC-150(V)/ARC-164(V)
AN/ARC-159(V)-2	RT-1150/ARC-159(V) C-9577/ARC-159(V) MT-4658/ARC-159(V) or MT-4760/ARC-159(V)	622-1524-002 622-1365-001 622-0629-001 622-1358-001 622-1358-002	} New installation (remote)
AN/ARC-159(V)-3 (ARC-27 retrofit)	RT-1150/ARC-159(V) C-9951/ARC-159(V) MT-4659/ARC-159(V)	622-1524-003 622-1365-001 622-2249-001 622-1750-001	
AN/ARC-159(V)-4 (ARC-52 retrofit)	RT-1150/ARC-159(V)  C-9952/ARC-159(V)  MT-4660/ARC-159(V)	622-1524-004 622-1365-001  622-2250-001  622-1751-001	RT-332B/ARC-52 RT-424A/ARC-52X C-743B/ARC-52 C-742C/ARC-52 C-780B/ARC-52
AN/ARC-159(V)-5 (10-watt ARC-51 retrofit)	RT-1150/ARC-159(V)  C-9946/ARC-159(V)  MT-4661/ARC-159(V)	622-1524-005 622-1365-001  622-2251-001  622-2314-001	RT-743B/ARC-51A RT-742C/ARC-51BX RT-780/ARC-51AX C-6287/ARC-51BX C-6476/ARC-51A C-6555/ARC-51A C-6556/ARC-51B C-7916/ARC-51C
AN/ARC-159A(V)-5 (30-watt ARC-51 retrofit)	RT-1194/ARC-159A(V)  C-9946/ARC-159(V)  MT-4795/ARC-159A(V)	622-1524-016 622-1366-001  622-2251-001  622-2559-001	RT-743B/ARC-51Z RT-742C/ARC-51BX RT-780/ARC-51AX C-6287/ARC-51BX C-6476/ARC-51A C-655/ARC-51A C-6556/ARC-51B C-7916/ARC-51C
AN/ARC-158(V)-8 (ARC-34 retrofit)	RT-1150/ARC-159(V)  C-9954/ARC-159(V)  MT-4664/ARC-159(V)	622-1524-008 622-1365-001 622-2252-001 622-1754-001	RT-263/ARC-34 RT-463A/ARC-34 C-1057B/ARC-34 C-6365/ARC-34

**Table 3. AN/ARC-159 Equipment Summary.**

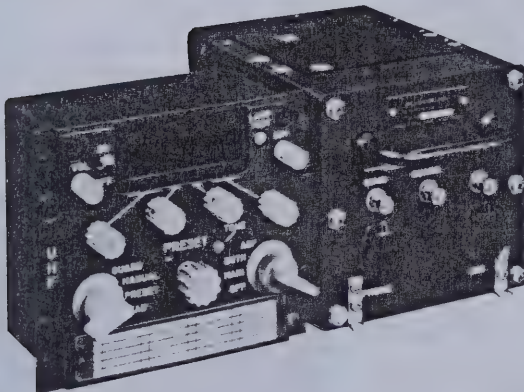
# AN/ARC-159 Equipment Variations



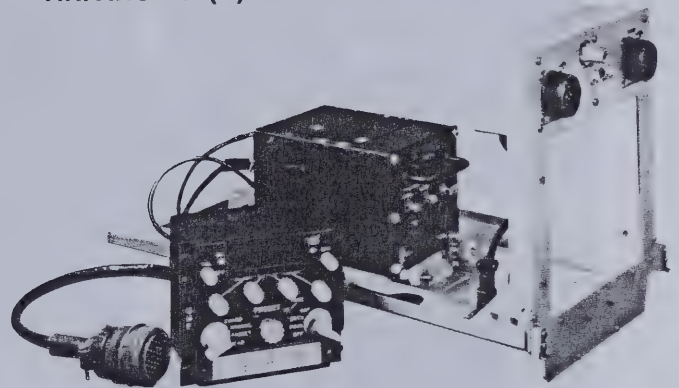
AN/ARC-159



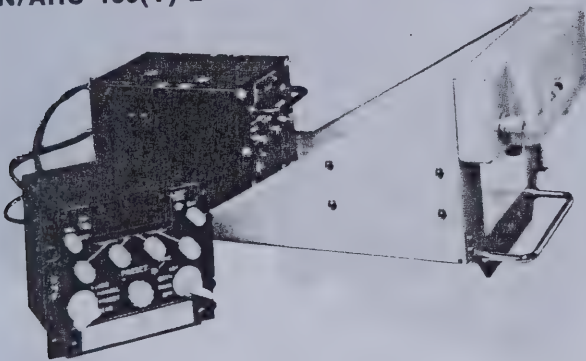
AN/ARC-159(V)-1



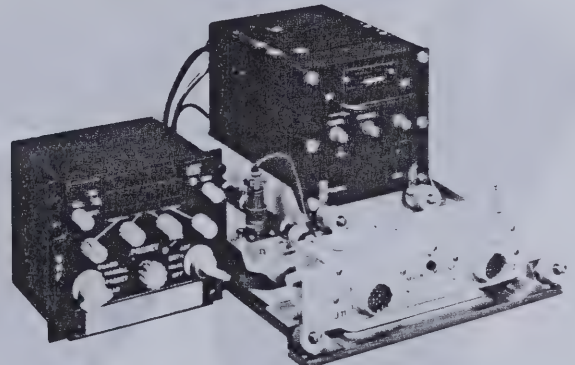
AN/ARC-159(V)-2



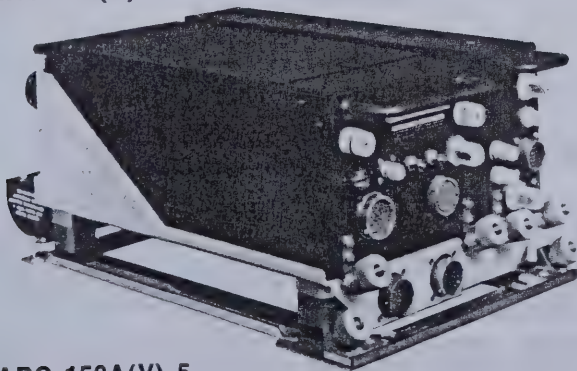
AN/ARC-159(V)-3



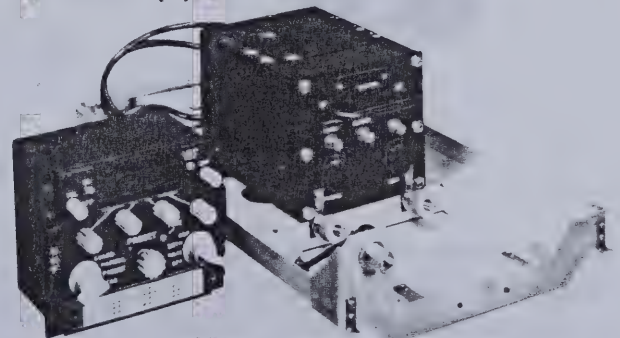
AN/ARC-159(V)-4



AN/ARC-159(V)-5



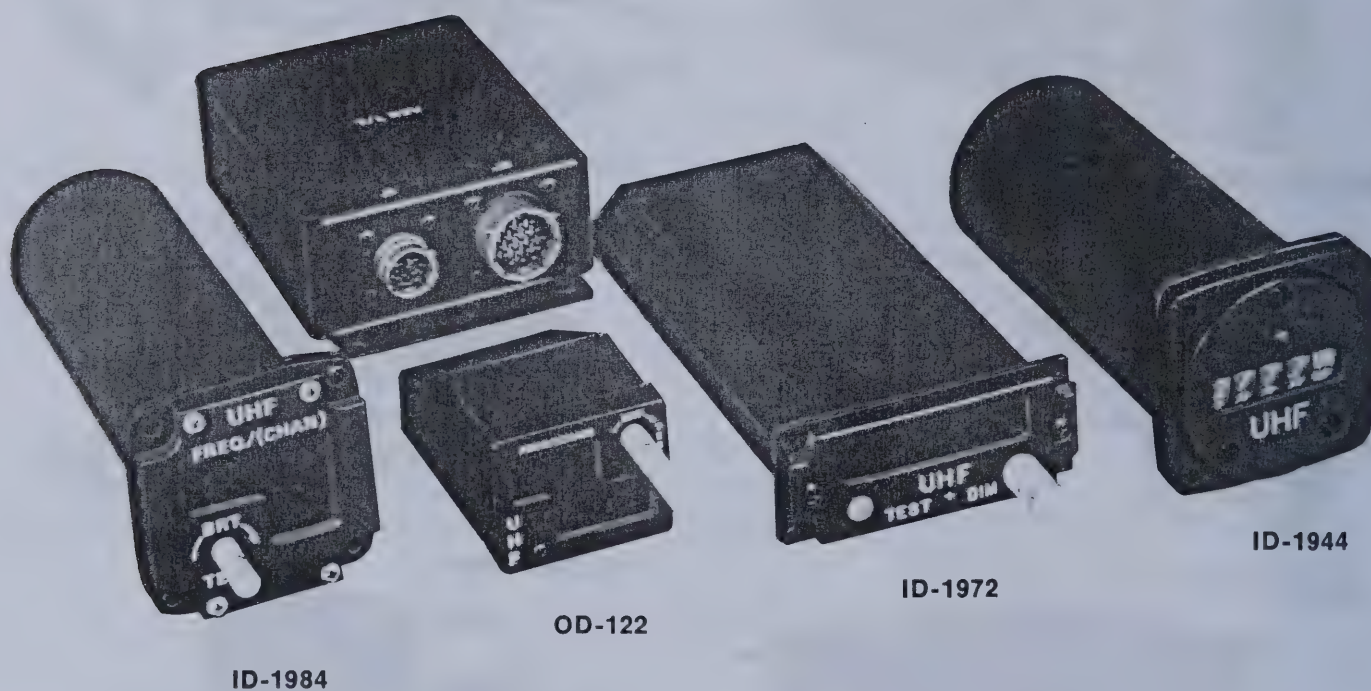
AN/ARC-159A(V)-5



AN/ARC-159(V)-8

	CPN	DESCRIPTION
ID-1972/ARC-159(V)	622-1624-001	Rectangular electronic readout
ID-1984/ARC-159(V)	622-2036-001	Cylindrical 2-in. diameter electronic readout
ID-1944/ARC-162	622-1374-001	Cylindrical 2-1/4-in. diameter magnetic wheel readout
OD-122/ARC-159(V)	622-2630-001	Miniature 2-unit indicator group with electronic readout consisting of indicator and converter
ID-2053	622-2443-001	
CV-3328	622-2444-001	

**Table 4.**



**Figure 14.**

A variety of remote channel/frequency indicators are available to meet the largest possible number of installation requirements. These indicators are shown in figure 14 and identified in table 4. Collins would be happy to discuss special adaptations of these indicators to meet new requirements.

Because of the extremely limited panel space in most modern tactical aircraft, Collins has developed an extremely compact control containing the most advanced features available today. The C-9815/ARC-159(V) "half-size" control unit may be used with any AN/ARC-159(V) or AN/ARC-159A(V) (30-watt) version. It retains the electronic display and preset-read capability, which



**Figure 15.**

has been proven by 3 years of field use. In addition it contains an electronic preset memory allowing front panel "one-button" loading of the 20 preset channels.

A unique system of slewing switches allows rapid selection of any manual frequency without the "knob twisting" of the past.

The entire control occupies only 2-1/4 inches of Dzus rail vertical space allowing dual uhf installation in the space formerly required for a single control.

Figure 15 shows the C-9815 with the RT-1150/ARC-159(V) for size comparison. Figure 10 shows installation dimensions.

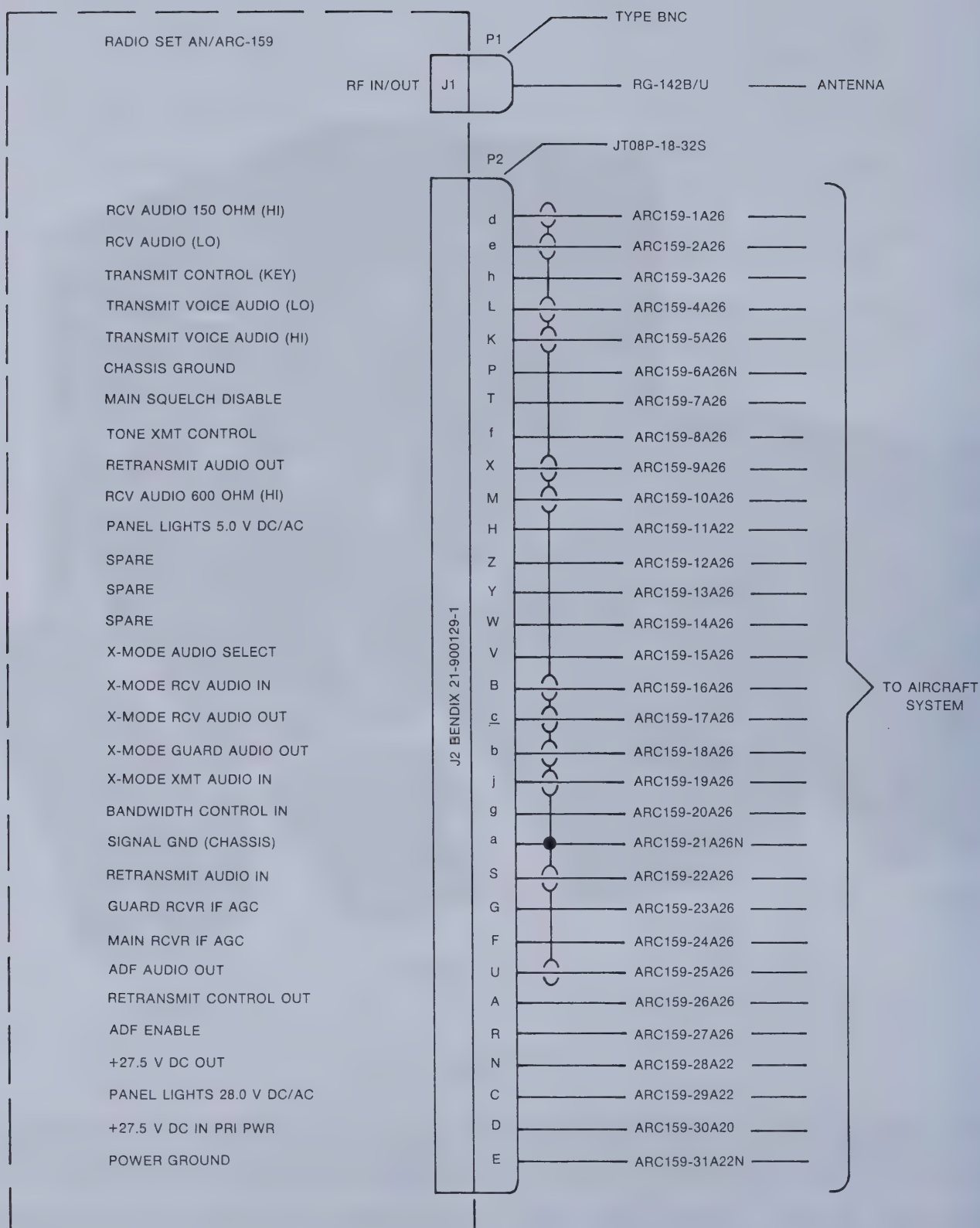


Figure 16.

WIRE TABLE FOR SINGLE AN/ARC-159

WIRE NO.	MAXIMUM OPERATING VOLTAGE	MAXIMUM OPERATING CURRENT (AMPERES)	WIRE NO.	MAXIMUM OPERATING VOLTAGE	MAXIMUM OPERATING CURRENT (AMPERES)
1	20	0.350	29	28	0.250
2	*20 (GND)	0.350(0)	30	28	5.000
3	24	0.050	31	GND	
4	GND				
5	28	0.075			
6	GND				
7	5	0.005			
8	12	0.010			
9	15	0.100			
10	20	0.350			
11	5	0.755			
15	28				
16	12	0.100			
17	2	0.010			
18	2	0.010			
19	6	0.015			
20	28				
21	GND				
22	15	0.100			
23	5	0.005			
24	5	0.005			
25	2	0.010			
26	28	0.100			
27	28	0.100			
28	28	0.500			
				*OPTIONAL USAGE	

AN/ARC-159 Radio Set, Single Installation, External Wiring









- | WIRE TABLE         |                                 |  |
|--------------------|---------------------------------|--|
| ARC159<br>WIRE NO. | MAXIMUM<br>OPERATING<br>VOLTAGE | MAXIMUM<br>OPERATING<br>CURRENT<br>(AMPERES) |
| 1                  | 2                               | 0 010  |
| 2                  | 20                              | 0 350  |
| 3                  | 2                               | 0 010  |
| 4                  | 28                              | 0 075  |
| 5                  | 6                               | 0 015  |
| 7                  | 24                              | 0 050  |
| 10                 | 20                              | 0 350  |
| 11                 | 2                               | 0 010  |
| 12                 | 28                              | 0 001  |
| 13                 | 28                              | 5 70   |
| 15                 | 5                               | 0 775  |
| 16                 | 28                              | 0 250  |
| 17                 | 28                              | 0 001  |
| 18                 | 225                             | 0 040  |
| ARC<br>WIRE NO     |                                 |  |
| 2                  | 28                              | 5 00   |
| 4                  | 28                              | 0 080  |
| 5                  | 28                              | 1 500  |
| 6                  | 28                              | 0 350  |
| 7                  | 28                              | 1 500  |
| 9                  | 28                              | 0 050  |
| KY-28<br>WIRE NO   |                                 |  |
| 3                  | 28                              | 0 100  |







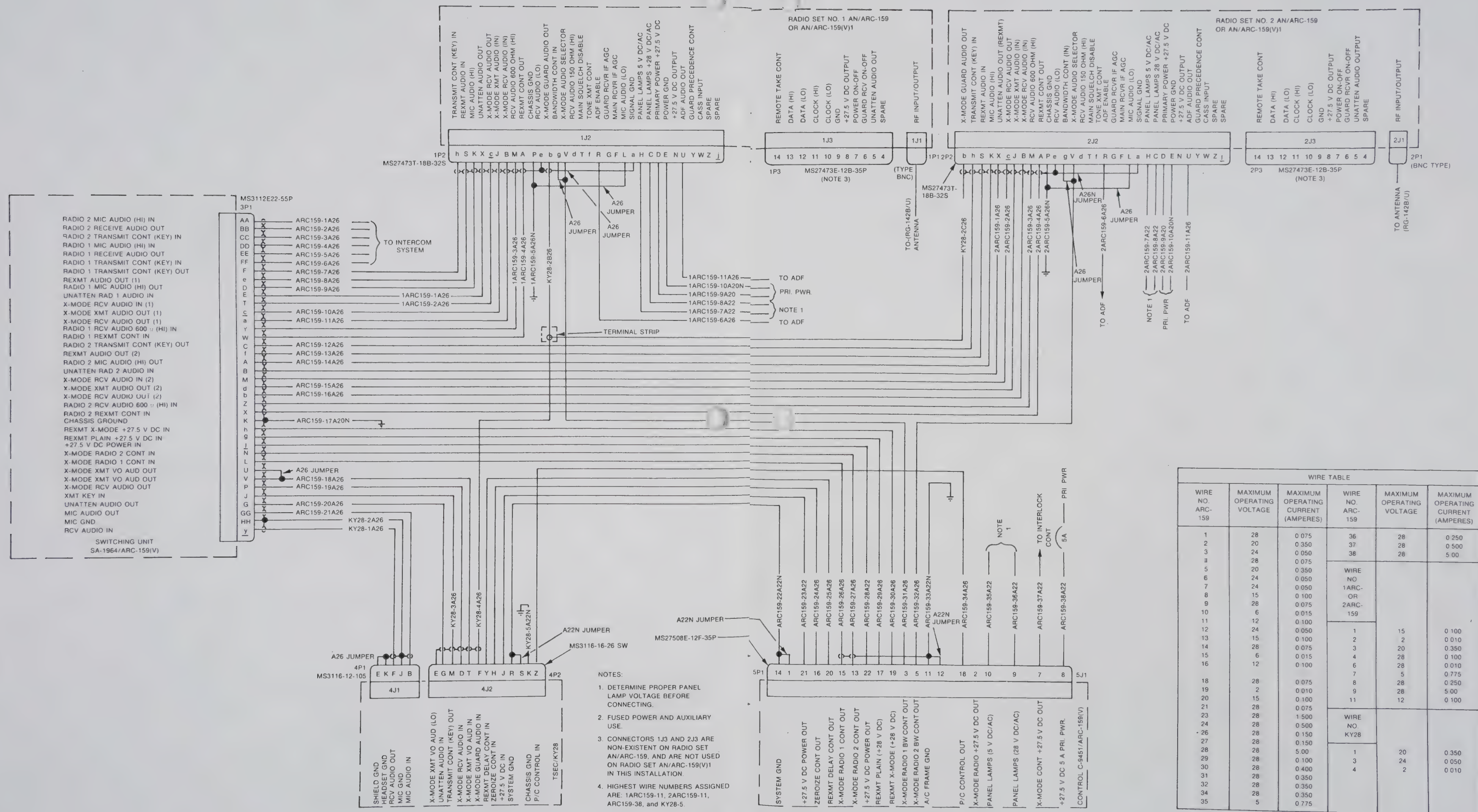
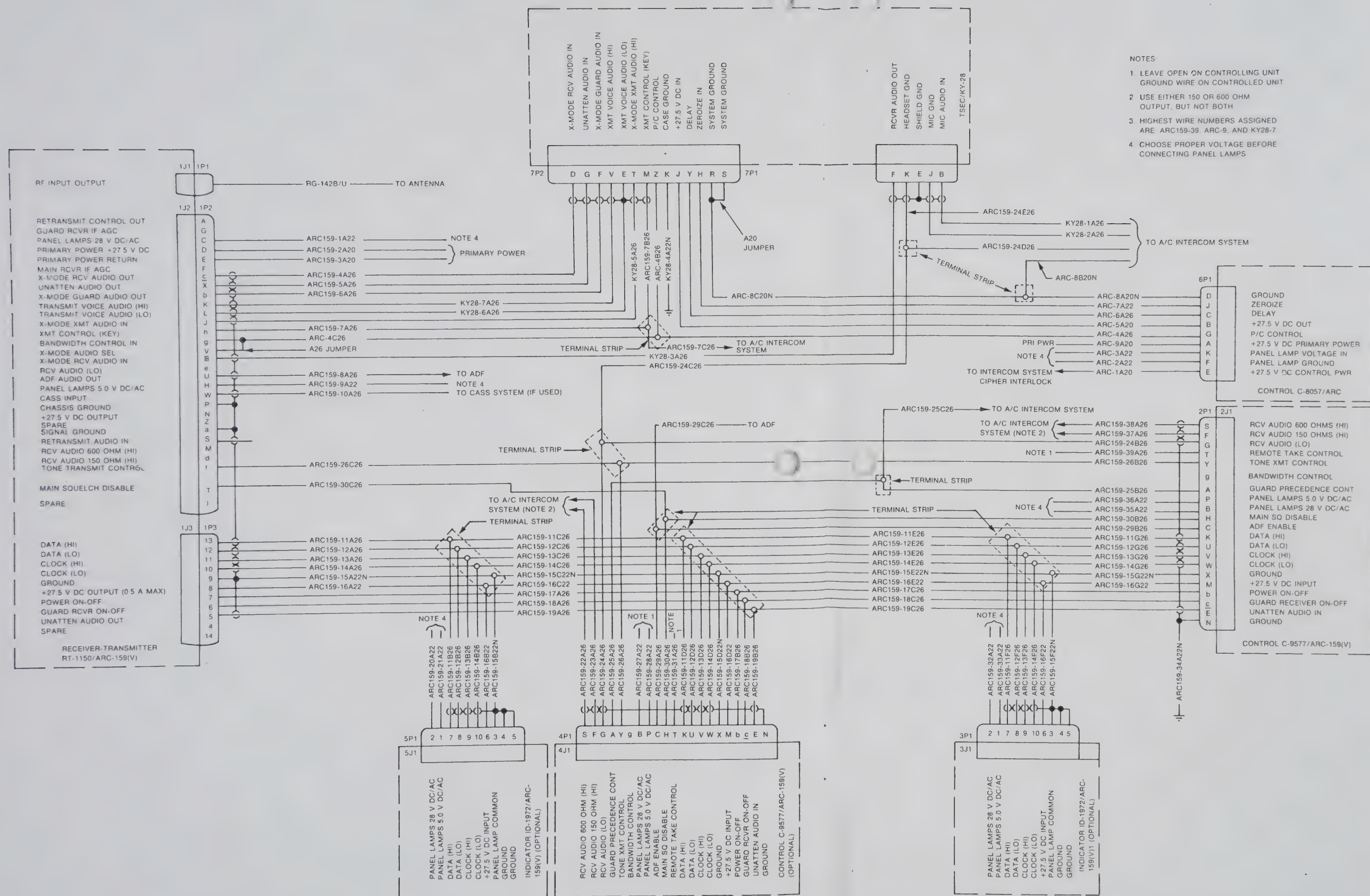


Figure 1 AN/ARC-159 and AN/ARC-159(V)1 Radio Sets, Dual Installation With Relay Equipment, External Wiring.









- NOTES:
1. LEAVE OPEN ON CONTROLLING UNIT GROUND WIRE ON CONTROLLED UNIT OUTPUT, BUT NOT BOTH
  2. USE EITHER 150 OR 600 OHM OUTPUT, BUT NOT BOTH
  3. HIGHEST WIRE NUMBERS ASSIGNED ARE ARC159-39, ARC-9, AND KY28-7
  4. CHOOSE PROPER VOLTAGE BEFORE CONNECTING PANEL LAMPS

CONNECTOR TABLE	
1J1	UG-6256/U
1P1	UG-88E/U (BNC-TYPE)
1J2	BENDIX 21-900129-1
1P2	MS27473T-18B-32S
1J3	BENDIX 21-900129-2
1P3	MS27473T-12F-35P
2J1	MS27497E-18B-32P
2P1	MS27473T-18B-32S
3J1	MS27508E-10F-35P
3P1	MS27484T-10F-35S
4J1	MS27497E-18B-32P
4P1	MS27473T-18B-32S
5J1	MS27508E-10F-35P
5P1	MS27484T-10F-35S
6P1	MS3116-12-10S
7P1	MS3116-12-10S
7P2	MS3116-16-26SW

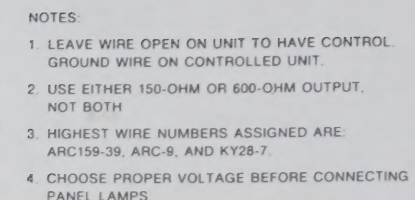
WIRE TABLE		
WIRE NO	MAX OPER VOLTAGE	MAX OPER CURRENT (AMPERES)
ARC-159		
1	28	0.250
2	28	5.00
4	2	0.010
5	15	0.010
6	2	0.010
7	24	0.050
8	12	0.100
9	5	0.775
10	0.5 VRMS	0.005
11	20	0.100
12	20	0.100
13	20	0.100
14	20	0.100
16	28	0.500
17	28	0.040
18	28	0.040
19	15	0.100
20	28	0.250
21	5	0.775
22	20	0.350
23	20	0.350
25	12	0.050
26	12	0.010
27	28	0.250
28	5	0.775
29	28	0.500
30	5	0.005
32	28	0.250
33	5	0.775
35	28	0.250
36	5	0.775
37	20	0.350
38	20	0.350
ARC		
1	28	5.00
3	28	0.080
4	28	0.350
5	28	1.500
7	28	0.500
9	28	1.500
KY28		
1	28	0.100
3	5	0.005
5	6	0.015
7	28	0.075

Figure 2: Single Installation, Remote Control, Receiver-Transmitter RT-1150/ARC-159(V) with Two Control Unit C-9577/ARC-159(V), Two Indicator ID-1972/ARC-159(V), and KY-28, External Wiring









WIRE TABLE		
WIRE NO.	MAXIMUM OPERATING VOLTAGE	MAXIMUM OPERATING CURRENT (AMPERES)
ARC159		
1	28	0.100
2	28	0.250
3	28	5.00
5	5	0.775
6	20	0.350
8	12	0.100
9	0.5 RMS	0.005
10	15	0.100
11	2	0.010
12	2	0.100
13	20	0.350
16	20	0.100
17	20	0.100
18	20	0.100
19	20	0.100
21	28	0.500
22	15	0.100
23	28	0.250
24	5	0.775
25	5	0.775
26	28	0.250
27	28	0.040
28	28	0.040
29	12	0.010
30	5	0.775
31	28	0.250
32	5	0.005
34	12	0.050
37	20	0.350
38	20	0.350
39	24	0.050
ARC		
1	28	1.500
2	28	0.350
3	28	1.500
5	28	0.500
7	28	5.000
8	28	0.080
KY28		
2	28	0.100
3	5	0.005
6	28	0.075
7	6	0.015

**Figure 1<sup>o</sup>** J/ARC-159(V)1 Radio Set, Single Installation, Local and Remote Control  
with Control Unit C-9577/ARC-159(V), Two Indicator ID-1972/ARC-159(V) and TSEC/KY-28 External Wiring

